

Attorney Docket No. P13850
Customer Number 27045

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Previously Presented) A device for communicating in a communications system, comprising:

a receiver configurable in a plurality of states, wherein in each state the physical layer headers associated with received frames of information are usable to determine the format in which the received frames of information are to be decoded and are interpreted differently relative to the interpretation of the physical layer headers in another state, wherein the plurality of states includes:

a speech state in which the physical layer headers indicate to the receiver to utilize speech decoding or fast associated control channel (FACCH) decoding for the information in the received frames;

a comfort noise state in which the receiver generates comfort noise, and best-effort data is interleaved with the physical layer headers, wherein the physical layer headers indicate that speech, data, or packet associated control channel (PACCH) information is included in the received frames; and

a speech possible state in which the receiver generates comfort noise, the physical layer headers indicate that speech or FACCH information is included in the received frames, and the receiver attempts to decode either speech or FACCH information, as indicated by the physical layer headers.

2. (Canceled)

3. (Previously Presented) The device of claim 1, wherein:

the receiver is configurable in the speech state when received frames of information include at least one of speech and FACCH information, in the comfort noise state during a speech silence period, and in the speech possible state when the

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received frames of information transition from the speech silence period to a talk spurt period.

4-5. (Canceled)

6. (Previously Presented) The device of claim 1, wherein:
received frames of speech information are diagonal interleaved;
received frames of best-effort data are block interleaved; and
physical layer headers of a first set of successively received frames of speech information indicate that the first set of received frames contain speech information when the physical headers of the first set of received frames are decoded as block interleaved frames.

7. (Canceled)

8. (Previously Presented) The device of claim 3, wherein:
the receiver enters the speech possible state from the comfort noise state when the physical layer header associated with the received frames of information indicate that the associated received frames of information include speech information.

9. (Previously Presented) The device of claim 3, wherein:
the receiver enters the speech possible state from the comfort noise state when adaptive multi-rate (AMR) identification markers associated with the received frames of information indicate commencement of receiving speech information.

10. (Previously Presented) The device of claim 3, wherein:
the receiver enters the speech state from the speech possible state when a physical layer header associated with a received frame of information indicates that the associated received frame of information includes speech and the associated received frame of information is successfully decoded as speech information.

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11. (Previously Presented) The device of claim 3, wherein:

the receiver enters the comfort noise state from the speech possible state when a physical layer header associated with a received frame of information indicates that the associated received frame of information includes speech and the associated received frame of information is unsuccessfully decoded as speech information.

12. (Previously Presented) The device of claim 3, wherein:

the receiver enters the comfort noise state from the speech possible state when the receiver receives and decodes one or more received first frames having FACCH information and one or more received second frames immediately following the one or more received first frames do not include FACCH information and speech information.

13. (Previously Presented) The device of claim 1, wherein:

the receiver is configurable in a speech state when received frames of information includes at least one of speech and FACCH information and in a comfort noise state during speech silence periods; and

the receiver transitions between the speech state and the comfort noise state even in an absence of identification markers indicating the type of information in the received frames of information.

14. (Previously Presented) The device of claim 13, wherein:

the receiver is configurable in the speech possible state when the received frames of information transition from a speech silence period to a talk spurt period; and

the receiver transitions between the speech state, the comfort noise state and the speech possible state even in an absence of identification markers indicating the type of information in the received frames of information.

15. (Original) The device of claim 1, wherein the receiver comprises:

an input circuit for receiving the received frames of information;

a decoding circuit for decoding the received frames of information into any of a plurality of signal formats; and

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a control circuit for controlling the decoding circuit based upon the values of the physical layer headers associated with the received frames of information.

16. (Previously Presented) The device of claim 1, wherein:

the receiver is configurable in the speech state when received frames of information include speech related information and in the comfort noise state during speech silence periods; and

the receiver transitions between the speech state and the comfort noise state based upon adaptive multi-rate (AMR) identification markers associated with the received frames of information.

17. (Previously Presented) A communications device for participating in a communication of information, comprising:

a receiver, comprising:

an input circuit for receiving transmitted frames of information;

a decoding circuit for decoding the received frames of information into any of a plurality of signal formats; and

a control circuit configurable into a plurality of states based in part upon adaptive multi-rate (AMR) identification markers of the received frames of information, the decoding circuit decoding the received frames of information based upon the state of the control circuit;

wherein the plurality of states includes:

a speech state in which physical layer headers of the received frames of information indicate to the receiver to utilize speech decoding or fast associated control channel (FACCH) decoding for the information in the received frames;

a comfort noise state in which the receiver generates comfort noise, and best-effort data is interleaved with the physical layer headers, wherein the physical layer headers indicate that speech, data, or packet associated control channel (PACCH) information is included in the received frames; and

a speech possible state in which the receiver generates comfort noise, the physical layer headers indicate that speech or FACCH information is included in the

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received frames, and the receiver attempts to decode either speech or FACCH information, as indicated by the physical layer headers.

18. (Canceled)

19. (Original) The communications device of claim 17, wherein:
the control circuit transitions between states even if a transmitted AMR identification marker is not received by the receiver.

20-26. (Canceled)

27. (Previously Presented) The communications device of claim 17, wherein:
the receiver is configurable in the speech state when received frames of information include at least one of speech and FACCH information and in the comfort noise state during speech silence periods;

received frames of information are decoded as diagonal interleaved signals when in the speech state and as block interleaved signals when in the comfort noise state; and

physical layer headers associated with the received frames of information indicating speech are the same when decoded as diagonal interleaved signals and as block interleaved signals.

28-31. (Canceled)